



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/485,657	03/24/2000	LEONARD COLIN ANDREWS	89073	2124

32116 7590 09/28/2004

WOOD, PHILLIPS, KATZ, CLARK & MORTIMER
500 W. MADISON STREET
SUITE 3800
CHICAGO, IL 60661

EXAMINER

MICHALSKI, JUSTIN I

ART UNIT PAPER NUMBER

2644

DATE MAILED: 09/28/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/485,657	Applicant(s) ANDREWS, LEONARD COLIN	
	Examiner Justin Michalski	Art Unit 2644	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05 April 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-25 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-25 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. In amendment filed 5 April 2004, "Please amend claim I, in its first line, by deleting '(or similar)'" has not been entered since "(or similar)" does not appear in line 1.

Claim Objections

2. Claim 4 is objected to under 37 CFR 1.75(c) as being in improper form because a multiple dependent claim should refer to other claims in the alternative only. See MPEP § 608.01(n). Accordingly, claim 4 not been further treated on the merits.
3. Claims 13-15 are objected to under 37 CFR 1.75(c) as being in improper form because a multiple dependent claim cannot depend from any other multiple dependent claim. See MPEP § 608.01(n). Accordingly, claims 13-15 have not been further treated on the merits.
4. Claims 14 and 15 are objected to because of the following informalities: It is unclear whether "signals" in line 2 of claims 13 and 14 are referring to the infrared signals or particular audio signals. Appropriate correction is required.
5. Claims 22 and 24 is objected to because of the following informalities: It is unclear to what particular signals the limitation "signals" is referring to in line 2. Appropriate correction is required.

Claim Rejections - 35 USC § 112

6. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

7. Claim 3 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claim 3, the phrase "such as" renders the claim indefinite because it is unclear whether the limitations following the phrase are part of the claimed invention.

See MPEP § 2173.05(d).

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claims 1-5, 7-10, 16-20, 23, and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lloyd ("Multi-Room Hi-Fi takes control of the home, The Sunday Times. 28 MAY 1995") in view of Knekt System Installation Manual Rev 2.00 (11/18/1996), and further in view of Puvogel (US Patent 4,733,389).

Regarding Claim 1, Lloyd discloses a distributed audio system, including: two or more speakers for the broadcast of stereo signals (separate speakers are used throughout a house); a source of stereo audio signals (main hi-fi system); a stereo amplifier to amplify stereo audio signals and drive the speakers (see description for kitchen and bedroom); a mains operated electrical power supply to provide power to the amplifier (see second column), where the amplifier is located in the same room as the speakers (Column 2 paragraph 3 discloses a separate amplifier and speakers in each room), and remote from the signal source and power supply (see description for kitchen and bedroom and Column 2).

Lloyd does not disclose power supply by means of a category 5 four twisted cable which provides, in respective conductors of the twisted pairs, right channel audio signals from the signal source the amplifier, left channel audio from the signal source to the amplifier and DC power from the power supply to the amplifier. The Knekt system installation manual describes the Knekt system in the cited Lloyd article disclosing the use of CAT5 cable for transmitting audio signals (Page 19). Puvogel discloses an Ethernet cable containing five twisted pairs. One pair used for each of three signals and another for power. The fifth pair is user defined (Col. 1, lines 46-57). Puvogel further discloses the power signal being a DC signal (Col. 1, lines 65-66). Since Puvogel discloses transmitting power and signals in a single cable, it would have been obvious to one of ordinary skill in the art at the time the invention was made to transmit DC power along with signals in one cable in order to reduce the number of cables needed.

Regarding Claim 2, Lloyd further discloses amplifier and speakers in several rooms receive signals from a single source of audio signals (main hi-fi system).

Regarding Claim 3, Lloyd further discloses the source provides a selection of components, and different audio signals are provided to different rooms (Paragraph bridging columns 2 and 3).

Regarding Claim 4, Lloyd further discloses the volume is set differently in each room (since each room contains its own volume control, each room can be set with different volume level, see left hand side descriptions).

Regarding Claims 5 and 20, it is well known in the art the amplifiers are based on integrated circuits to reduce the size of the amplifier.

Regarding Claim 7, it is inherent that the greater the input level to an amplifier the greater the output level will be.

Regarding Claim 8, Lloyd further discloses a manual volume control is included with the amplifier (Lloyd discloses control using remote control or room control unit, see wiring up for sound: the living room).

Regarding Claim 9, Lloyd further discloses a hand-held remote control is provided to transmit infrared signals to a receiver mounted with the amplifier (see meanwhile in the kitchen).

Regarding Claim 10, Lloyd further discloses the amplifier is mounted with a speaker (Lloyd discloses a separate amplifier and speakers, Col. 2, paragraph 3).

Regarding Claim 16, 23, and 25 Lloyd further discloses the amplifiers receive signals from a pre-amplifier (i.e. standard line level signals) (see descriptions on left).

Regarding Claim 17, Lloyd further discloses the amplifier accepts speaker signals from another amplifier (pre-amplifier, see wiring up for sound).

Regarding Claims 18 and 19, it is well known in the art that audio amplifiers contain muting systems in order to disable the audio output and input level trim devices such as equalizers to customize the frequency response of the audio system.

10. Claims 6 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lloyd ("Multi-Room Hi-Fi takes control of the home, The Sunday Times. 28 MAY 1995") in view of Knekt System Installation Manual Rev 2.00 (11/18/1996), in view of Puvogel (US Patent 4,733,389) as applied to claim 5 and 20 above, and further in view of QED AUDIO PRODUCTS LTD., "An Introduction to Streamline", April 1988, Ashford, Middlesex, England.

Lloyd in view of Knekt System Installation Manual and Puvogel disclose a system as stated apropos of claims 5 and 20. Knekt System Installation Manual further discloses the use of a wall mounted (i.e. electrical light switch housing) (Page 4, under RCU heading and figures of Lloyd reference). Lloyd in view of Knekt System Installation Manual and Puvogel do not disclose the amplifier mounted inside an electrical light switch housing. QED Audio Products discloses a multi-room audio system including a room control amplifier mounted flush on the wall (see right hand figure under "The Room Control Amplifier" on page 2 of reference) and further discloses it is intended to be located completely out of sight (page 2, first paragraph under "The Eye and Handset"). Therefore, it would have been obvious to one of ordinary skill in the

Art Unit: 2644

art at the time the invention was made to include the amplifier mounted inside a light switch housing to hide the amplifier from sight as disclosed by QED Audio Products.

11. Claims 11-15, 22, and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lloyd ("Multi-Room Hi-Fi takes control of the home, The Sunday Times. 28 MAY 1995") in view of Knekt System Installation Manual Rev 2.00 (11/18/1996), in view of Puvogel (US Patent 4,733,389) as applied to claim 1 above, and further in view of QED AUDIO PRODUCTS LTD., "An Introduction to Streamline", April 1988, Ashford, Middlesex, England.

Regarding Claim 11, Lloyd in view of Knekt System Installation Manual and Puvogel disclose a system as stated apropos of claim 9. Knekt System Installation Manual further discloses the use of a wall mounted (i.e. electrical light fitting fascia plate) control panel which includes an infrared receiver (Page 4, under RCU heading and figures of Lloyd reference). Lloyd in view of Knekt System Installation Manual and Puvogel do not disclose the amplifier mounted inside a standard electrical light fitting. QED Audio Products discloses a multi-room audio system including a room control amplifier mounted flush on the wall (see right hand figure under "The Room Control Amplifier" on page 2 of reference) and further discloses it is intended to be located completely out of sight (page 2, first paragraph under "The Eye and Handset"). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to include the amplifier mounted inside light fitting to hide the amplifier from sight as disclosed by QED Audio Products.

Regarding Claim 12, Lloyd further discloses the fascia plate also includes status indicators for the amplifier and the audio signal source components (see figures).

Regarding Claim 13, Puvogel further discloses three twisted pairs for signals and one which is user defined (i.e. to conduct infrared control signals).

Regarding Claims 14, 15, 22, and 24, it is inherent that signal are modulated before transmission to an infrared emitter in order to transmit the signals through space and that they will be demodulated when received.

Conclusion

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Justin Michalski whose telephone number is (703)305-5598. The examiner can normally be reached on 8 Hours, 5 day/week.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bill Isen can be reached on (703)305-4386. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

JIM


XU MEI
PRIMARY EXAMINER